



# CALIFORNIA POOLS & LANDSCAPE

## OWNER'S MANUAL



## A WORD OF THANKS....



Thank you for choosing California Pools & Landscape. We not only take great pride in building an exceptional pool that enhances the beauty and value of your home, but one that also enhances the quality of life for you, your family and your friends. We hope you enjoy it for many years to come.

Please use this booklet as you review your pool's features with the orientation technician. Then keep it handy so you can use it whenever questions arise. If you need another copy, we'll be happy to provide one. It's important that you know how to take care of your pool so that it will continue to provide you with years of trouble-free performance.

Thank you again for choosing a California Pool & Landscape as the centerpiece of your backyard oasis!

Sincerely,

**JEREMY SMITH**  
**PRESIDENT**  
**CALIFORNIA POOLS & LANDSCAPE**

## TABLE OF CONTENTS

### WATER CHEMISTRY

Water Chemistry Definitions	4
Alkalinity and pH Control	5
Chlorine and Sanitation	6
Coping With Mother Nature	6

### YOUR POOL'S CONTROLS

How the Water Flows	7
Notes for Electrical Controls	7
Pool Care Tips	8
My Pool's First Year (Chemical Log)	9-10

### PARTS OF THE POOL

Timer, Pumps, Baskets, O-Ring –	11
How Your Pool Works	11
Lights and Electronics	12-13
Electronic Controls	13
DE Filters	13-14
Sand and Cartridge Filters	15
Heaters	16
Drains, Skimmers and Water Levelers	17
Pool Vacuums	18
Wave Force Circulation	18
Automatic Salt Chlorinator Systems	19
Water Flow and Water Diversion Valves	19

### ISSUES AND PROBLEM-SOLVING

Concrete Cracks	20
Pool Leaks and Structure Cracks	20
Calcium Build-Up	21
Sea Glass Pebble®	21
Common Troubleshooting	22-23

### REFERRAL REWARD PROGRAM

Forms	25
-------	----

## ASSISTANCE INFORMATION

At California Pools & Landscape, we view your warranty requests as an opportunity to prove that you made a wise choice in selecting California Pools in the first place. We welcome your calls and any questions that you may have. We are committed to making each and every experience a pleasant one for you.

We pledge that we will surpass the industry warranty standards. Even when an item is not under warranty, we will do our best to assist you whenever you have a question or a problem with your pool.



### PUNCH LIST DEPARTMENT

**480-756-7037**

**HOURS MONDAY - FRIDAY 8:00 A.M. - 5:00 P.M.**

Call us whenever you have questions regarding the items on the punch list sheet that you and the technician filled out during your pool orientation session. Once punch list items are completed your file is transferred to our warranty department.

### WARRANTY DEPARTMENT

**POOL & EQUIPMENT SERVICE 480-756-7051**

**ALL OTHER WARRANTY REQUEST 480-756-5681**

**HOURS MONDAY - FRIDAY 8:00 A.M. - 5:00 P.M.**

Please contact the Warranty Department regarding any issues related to equipment, interior finish, your pool deck or any other items covered under our three-year warranty. Call the number above or go to [www.calpool.com/warranty.htm](http://www.calpool.com/warranty.htm). Please refer to your pool contract for specific information on warranty coverage.

## A FEW WORDS ABOUT THE IMPORTANCE OF POOL SAFETY

We want you to enjoy your new pool as much as possible. But having a swimming pool in your yard means that you also have a whole new set of responsibilities – especially when it comes to children.

Fences, alarms and safety latches on gates are good to have. But you can't buy safety. Safety can't be found in government guidelines or other printed material either. It's up to you. Take the following suggestions seriously and follow your common sense.

### NEVER LEAVE CHILDREN UNATTENDED NEAR A SWIMMING POOL.

Young children should be monitored constantly and older children must learn to understand and accept their responsibilities.

### IT'S A FACT: ALMOST ALL POOL ACCIDENTS CAN BE PREVENTED

Here are some important RULES and tips to keep in mind:

1. Always have a phone by the pool in case of an emergency.
2. Know CPR and lifesaving techniques.
3. Keep all gates locked and in good working order – check them weekly.
4. Teach older children that younger children will often try to follow them through doors and pool gates. Teach everyone to keep gates secure – lives depend on it. Never leave a gate open.
5. A pool is potentially as dangerous as a busy street. Treat it with the same awareness and caution.
6. Never dive into shallow water.
7. Don't run around a pool or on any wet surface.
8. Allow only safe toys in and around the pool (no ropes or electric devices).
9. Appoint a responsible person to be the pool lifeguard at large functions.
10. Store all your pool chemicals safely.

Also, please read the municipal government guide given to you when you purchased your California Pool. If you need another copy, please call us at 480-345-0005 and we will be happy to send one to you.

**PLAY. HAVE FUN. BE SAFE.**

# WATER CHEMISTRY

## WATER CHEMISTRY DEFINITIONS

Pool water chemistry can be made to sound complicated with lots of theory and complex language. But all it requires is a little time and effort to read through this manual and learn the basics. Any pool will turn green or stain if someone doesn't spend a few minutes once or twice a week on pool care.

Here are the pool terms and definitions that you should understand:

### CHLORINE

used as a disinfectant in pool water to kill bacteria and control algae that can be harmful to you and your pool. It is commonly sold in both liquid and tablet form.

### MURIATIC ACID

used to lower the alkalinity level of a pool and balance its pH (acidity) levels. It comes in one-gallon containers.

### CALCIUM

found in most water, it is measured to determine the "hardness" of your pool water. Water constantly evaporates but leaves behind elements like calcium. As the calcium levels increase, they form deposits and contribute to the formation of scale commonly found at the water line.

### TOTAL ALKALINITY

defined as the water's resistance to change in pH, it can be brought down by adding acid and raised, if ever required, by adding baking soda. The key to maintaining optimum pool water chemistry lies in stabilizing its alkalinity. The chlorine and pH can then work more effectively to prevent calcium accumulation and the resulting scale build-up.

### PH BALANCE

the pH (acidity) of your pool water should stay between 7.4 and 7.6. It is lowered by adding muriatic acid and raised, if need be, by adding soda ash. In Arizona, lowering the pH is a common practice. Maintaining a proper balance will reduce eye irritation, metal corrosion, scale formation and other problems. The pH level will remain more stable (see below) when a proper alkalinity level is maintained.

### STABILIZER

(Cyanuric Acid) – maintains the effectiveness of chlorine in the pool and protects it from being destroyed by sunlight. A minimum level of 30 parts per million (ppm) should be maintained (80 ppm with a salt pool). Most chlorine tablets already have stabilizer added to them.

### PPM

an abbreviation for parts per million, it is commonly used to express acceptable ranges of elements found and tested for in your pool water. For instance, water hardness should stay between 200 and 400 ppm; total alkalinity between 100 and 120 ppm and available chlorine between 1.0 and 3.0 ppm.

# ALKALINITY AND PH CONTROL

To enjoy consistently clear pool water, its alkalinity levels must be maintained by regular testing and adding acid to the water whenever necessary in order to bring alkalinity and pH levels into balance.

### ALKALINITY

Once alkalinity is balanced, a pool's water becomes much easier to work with. Alkalinity levels are best kept between 100 and 120 ppm. Levels below 100 are corrosive and levels above 120 cause scaling. Maintaining correct alkalinity levels is made easier by learning to use the supplied water test kit and adding muriatic acid as prescribed.

### PH CONTROL

Proper pH balance is also maintained with acid. The procedure is similar to maintaining alkalinity in that you examine the water with the same test kit and then adjust the balance by adding muriatic acid. If your pool water is too high on the pH scale, calcium and other elements can plate to the pool's tile at the waterline and to other surfaces. If the pH is too low, the pool's interior surfaces can be etched or eaten away. The proper pH range is 7.4 to 7.6 ppm.

**CAUTION: ALL ACIDS CAN BE DANGEROUS. NEVER MIX ACID WITH ANY OTHER CHEMICALS.**

1. Avoid direct skin and eye contact or inhaling the fumes when adding acid to your pool.
2. Be sure to turn the pool pump on before adding acid.
3. Do not hold the container directly beneath your face when adding acid to your pool water.
4. **DO NOT** add acid:
  - over the pool steps,
  - near any metal railings or
  - in only one area of the pool



## POOL CARE TIPS

**IMPORTANT: DURING THE FIRST WEEK, BE SURE TO BRUSH YOUR POOL 4 OR 5 TIMES A DAY - ESPECIALLY IF IT IS A PLASTER POOL.**

Once your pool water is stabilized, test it twice a week.

**1. LOOK FOR ETCHING OR DISCOLORATION.** If the pH is too low, or acid has been added in just one area or over the steps, etching (scarring) will likely occur on the plaster or See Glass Pebble®. This damage is permanent and can be avoided by following proper procedures.

**2. BRUSH YOUR POOL** regularly, but especially after a dust storm. Dust or dirt can stain newer plaster and Sea Glass Pebble® surfaces.

**3. REMOVE DEBRIS.** Use a leaf skimmer attached to a pool pole to collect floating debris and insects. You can also use it to net leaves and large debris that fall to the bottom of the pool.

**4. TEST THE WATER.** If tests indicate that the pH is too high, add acid to bring it down. Too much calcium in the water will cause scaling which will scar the water line, water features and interior surface. Calcium scarring looks like a dirt stain on plaster and appears white on Sea Glass Pebble®, tiles and water features.

**5. HAVE THE WATER ANALYZED.** Once a month, it's a good idea to take a quart of water into your local pool supply store to have it analyzed. They can test for hardness, stabilizer and metals. Follow a reputable company's suggestions for partial drainage to control calcium hardness of the water. The ideal calcium level in plaster pools is 250 ppm and should never exceed 600 ppm.

**6. LUBRICATE THE PUMP BASKET O-RING.** The "O" ring on the underside of the clear lid should be lubricated monthly using a silicone lubricant available in any pool store. Never use a petroleum-based lubricant such as Vaseline.

**7. TALK TO EXPERTS.** A pool supply store can give you great information on battling mustard, black or green algae and on the use of water clarifiers, waterline cleaning products, etc.

**8. DRAINING YOUR POOL.** Once hardness levels exceed 800 ppm you need to replace all your pool water. Be sure to have a service professional do this for you. Do not drain your pool unless the high outdoor temps are below 80 degrees.

**NOTE: MOST NEW PLASTER POOLS APPEAR MOTTLED GREY AND WHITE IN COLOR - PARTICULARLY IN THE EVENING LIGHT OR AT NIGHT WHEN ILLUMINATED BY YOUR POOL LIGHT. PLASTER IS A NATURAL SUBSTANCE MINED FROM THE EARTH AND VARIATIONS IN COLOR ARE NORMAL.**

**IF A STAIN OCCURS ON THE SURFACE OF THE LASTER, IT COULD HAVE BEEN PREVENTED AND IS NOT COVERED UNDER YOUR WARRANTY. PLEASE, MONITOR ALL CHEMICAL VALUES REGULARLY AND MAINTAIN RECOMMENDED LEVELS.**

## STAINLESS STEEL LADDER AND RAIL MAINTENANCE TIPS

**1. DO NOT ADD CHLORINE ANYWHERE NEAR LADDERS OR RAILS.** (Concentrated chlorine and stainless steel are not compatible.)

**2.** Stainless steel requires periodic maintenance in order to retain its brightness. Clean and polish them using a cotton cloth and a Windex-type product to restore its luster. If you see discoloration or rust, use Bon Ami, Ajax or a similar powdered cleanser and a damp cotton cloth.

**3.** Indoor pool railings and ladders require more frequent maintenance because of trapped chlorine vapors. Regular protective care is essential in order to maintain their appearance.

## MY POOL'S FIRST YEAR

FILTER PRESSURE WHEN CLEAN \_\_\_\_\_ PSI

TOTAL GALLONS IN MY POOL/SPA (stated on your pool plan)

FIRST WEEK			
WEEK 1	PH	ALKALINITY	CHLORINE
DAY 1			
DAY 2			
DAY 3			
DAY 4			
DAY 5			
DAY 6			
DAY 7			
FIRST 3 MONTHS			
WEEK	PH	ALKALINITY	CHLORINE
2			
3			
4			
POOL STORE TEST			
5			
6			
7			
8			
9			
10			
11			
12			
POOL STORE TEST			
FIRST 3 MONTHS			
WEEK	PH	ALKALINITY	CHLORINE
13			
14			
15			
16			
17			
18			

continued on next page

## MY POOL'S FIRST YEAR

FIRST WEEK	PH	ALKALINITY	CHLORINE
19			
20			
21			
22			
23			
24			
POOL STORE TEST			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
POOL STORE TEST			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
POOL STORE TEST			

## PARTS OF THE POOL

A pool is a very simple mechanical device. Simply put, it is a watertight concrete and steel structure. A pump and pipes are used to either pull water out of the pool or return water back to it.

Your electrical pump pulls water from the pool through two drains built into the pool floor and from the skimmer at the waterline. The drain at the waterline is called a "skimmer" because it draws surface water and floating debris (such as bugs and leaves) into the opening in the pool wall and down through a plastic basket that can be removed for cleaning. The water then flows through pipes to the pump. Another removable basket is positioned in the pump to ensure no large debris reaches the filter.

Once the water passes through the pump it is pushed through the filter and the clean water is pushed back into the pool through openings below the water line (called wall returns) or, if you change the adjustable valve settings, it can return through your spa jets, waterfalls, aerator or, on some pools, in-floor cleaners.

Most pool pumps are variable speed pumps. All of them appear very similar. While you will occasionally use the pump's manual On/Off switch, it is normally turned on and off automatically by an adjustable timer within the pool's equipment panel or pump itself. Visit [www.haywardnet.com](http://www.haywardnet.com) for more info.

## SET YOUR TIMER APPROPRIATELY

On pools of 18,000 gallons or less, you should set the timer to run one hour for every ten degrees of water temperature. So, during the summer months when the water temperature is close to 90 degrees, your pump should run for nine hours – be sure it's set to run during the hottest part of the day. As the water temperature drops to 60 degrees or so during the off-season, you can set it to run for six hours at night – especially if there is a freeze warning. Larger pools should run 20 % to 30 % longer.

## CHECK YOUR PUMP BASKET

### REGULARLY

**WARNING: DO NOT REMOVE BASKET WHILE PUMP IS ON.**  
**REPLACE AND SEAL LID BEFORE TURNING ON THE PUMP.**

Every week (or sooner depending on storms, vegetation etc.), you should check the basket located in the pump. The lid is clear so depending on the light, you can look down into it to check for debris.

If it requires cleaning, turn off the pump manually if it is running, unscrew the clear lid, remove the basket and clean it thoroughly before replacing it. Be sure to reinsert the basket properly or you won't be able to tighten the lid and seal the opening.

Once you have tightened the lid, turn on the pump. You will see water slowly filling the pump basket as the pump starts pushing air out of the system (bubbles will appear at the wall returns) and the pipes refill with water.

This could take a minute or two. You can tell that the pump is primed and working properly when air stops bubbling out of the wall returns. You'll also hear the pump become less noisy. A quiet pump is operating properly. If it is noisy or you hear it surging, there is not enough water entering the pump. See **TROUBLESHOOTING** on the following page.

## LUBRICATE THE O-RING

The O-ring gasket on the underside of the clear lid should be lubricated monthly using a silicone lubricant available in any pool store. Never use a petroleum-based lubricant such as Vaseline.

For more information, go to [www.haywardnet.com](http://www.haywardnet.com) and then click on the name of your pump model and/or on See how a Hayward in-ground pump works.

### TROUBLESHOOTING

If the pump doesn't quiet down in a minute or so, you can speed things up by opening the air relief valve (located on top of the filter) while the pump is running and you see water entering the pump through the clear lid. This will bleed off the air more quickly.

If the surging continues or you can't see any water entering the pump through the clear lid, shut off the pump manually. (Be sure your pool's water level is up to the middle of your skimmer opening. If it is too low, the pump can't draw

water.) Check all valve settings so that you are certain they are open and set properly.

If the water level and valve positions are okay, be sure pump is off, then unscrew the clear lid on top of the pump basket. (You can leave the basket in place.) Using a water hose or large bucket of water, pour a gallon or two into the opening to help prime the pump. Then, REPLACE THE LID QUICKLY and seal it. Turn on the pump. Wait a minute or so and repeat if necessary.

### LIGHTS AND ELECTRONICS

Your pool light has been positioned to do the best job of illuminating your pool, though it is normal for some areas of the pool to be brighter than others. Even the slightest irregularities in the pool wall and bottom will be exaggerated. At night, remember to be especially cautious whenever jumping or diving into your pool.

The pool light can be turned on manually by using the light switch located near your pool pump. This refers to standard controls only. We also provide a remote to operate your pool light.

**NOTE: THE STANDARD PLUG-IN REMOTE CONTROL SENDS A SIGNAL THROUGH YOUR HOME'S ELECTRICAL WIRING AND WILL TURN THE POOL LIGHT(S) ON AND OFF AS WELL AS DIM OR BRIGHTEN THEM. IF THE LIGHT COMES ON WITHOUT YOU SWITCHING IT ON, IT'S POSSIBLE THAT A NEIGHBOR'S REMOTE CONTROL DEVICE IS ON THE SAME FREQUENCY.**

If the light does not turn on using the push-button switch, check the following:

1. Below the on/off switch button is a smaller white switch called a sliderbar. This is a feature which can be used to keep neighbors from unintentionally turning

your pool light on and off through remote control interference. The proper position for this button is to the right where it lines up with the manual button. To the left is the lock out position and will prevent the light from operating. If the sliderbar is positioned properly and the light still can't be turned on, proceed to the next step.

2. There is a ground fault circuit interruption (GFCI) device that will automatically shut off the light if there is moisture or the potential for a short in the wiring. This is a normal looking electrical plug with both red and black buttons in the middle of it and should be located very close to your light switch. First, push the black "test" button (the pool light and plug won't work). Then, push the red "reset" button. This will reset the circuit and should allow the light and plug to operate normally. Turn the light on manually. Proceed to the next step if it does not come on.

3. The final place to check a non-working light is the breaker box in your home's electrical panel. (We leave this breaker in the off position during construction. A pool light is designed to work underwater – it will heat up and burn out if it is turned on without water covering it.) Reset the breaker if it has tripped. If your pool light still won't work, call us.

### REPLACING A BURNED OUT BULB

Burned out bulbs should be replaced by a qualified pool service technician.

For specific information and instructions pertaining to



### ELECTRONIC CONTROLS

#### GOLDLINE MODEL P-4, MODEL P-6 & MODEL PS-8

Please go to [www.haywardnet.com](http://www.haywardnet.com)



### DE FILTERS

The pool pump pushes dirty water through a DE (diatomaceous earth) filter. The dirty water passes across the filter grids that are coated by DE. Dirt, oils and other debris are caught and held by the DE material.

After a couple of months, the pressure gauge on top of the pool filter will show a higher number than normal. An increase of 10 pounds indicates that too much pressure is required to push pool water through the grids and it's time to backwash (clean) the filter. A DE filter usually needs to be backwashed every two to three months.

### BACKWASHING YOUR DE FILTER

To backwash the filter, follow these steps:

1. Turn off the pump and unroll the flexible blue hose, placing the end of it in an area that is appropriate for dispersing dirty water.
2. Twist and then pull up on the backwash lever.
3. Turn the pump on again. The water will be reversed and will wash both the dirt and DE material off the grids and send it out through the blue backwash hose.

your electronic control system, please visit the appropriate website listed below. Each offers a downloadable owner's manual if you need a replacement for the one we provided to you.

### AQUA LINK

Please go to  
[www.Zodiacpoolsystems.com/Products/Jandy.aspx](http://www.Zodiacpoolsystems.com/Products/Jandy.aspx)

4. When the water clears, shut off the pump. It will take a minute or two for the water coming out the end of the hose to clear.
5. Push the backwash valve down and twist it into the locked position.
6. Turn on the pump again for about one minute.
7. Then, turn it off, raise the handle and backwash again. The second backwash ordinarily lasts just a few seconds.
8. Repeat this process until no dirt or DE can be seen in the runoff – it usually takes three backwashes to complete the job.

Next, you'll need to recharge the filter by adding new DE. Follow these steps:

1. Open up the skimmer lid by the pool typically located in the deck.

## DE FILTERS CONTINUED

2. Pull out the basket and the diverter plate underneath it. You should be able to see two holes in the bottom of the skimmer.
3. Replace just the basket.
4. Turn the pump on and GRADUALLY sift the appropriate amount of DE material. It will coat the filter grids automatically as it is pushed through the filter. A 1 lb. coffee can will hold 1/2 lb. of DE
  - Use 3 lbs. of DE for a 36 sq. ft. filter
  - Use 3.5 lbs. DE for a 48 sq. ft. filter
  - Use 4 lbs. DE for a 60 sq. ft. filter
  - Use 5 lbs. DE for a 72 sq. ft. filter

If the pressure gauge does not return to its normal operating range, your pool valves may be positioned incorrectly (pushing water through spa jets, waterfalls, the aerator or the heater will increase the pressure).

Or you have not backwashed properly. It's also possible that you put too much DE into the filter. If that's the case, backwash and recharge the filter again. If that doesn't solve the problem, the filter must be taken apart and cleaned manually.

California Pools recommends having your DE filter taken apart and thoroughly cleaned once a year. This is routine maintenance (not under warranty) and should be performed by a qualified service technician.

For more information, go to [www.haywardnet.com](http://www.haywardnet.com) and click on DE Filters.

## BACKWASHING TIPS

1. It's best to note the operating pressure before you backwash. It should be 5 to 10 lbs. lower after backwashing, reflecting a freer, less restricted flow of water.
2. It is normal for the pool to lose a few inches of water during backwashing. This is good for the pool but it needs to be refilled. If you have an automatic water leveler, it should only take an hour or two.
3. Do not backwash so long that the water level in the pool falls below the skimmer. If this happens, the pump will suck air into the system which can eventually damage the pump. Add water to your pool before continuing. You can raise the water level more quickly by using a garden hose in addition to your automatic water leveler (if your pool is equipped with one).

## SAND FILTERS

A sand filter requires frequent backwashing because dirt and debris gather on the surface of the sand rather quickly. You should backwash the filter whenever the pressure gauge on top of the pool filter reads 10 pounds above the reading you get when the filter is clean.

It is important to backwash a sand filter every week or two. To backwash your sand filter, follow these steps:

1. Turn the pump off and unroll the flexible blue hose placing the end of it in an area that is appropriate for dispersing dirty water.
2. Push down on the backwash lever. This will send water into the bottom of the sand filter washing the dirt up and off the sand. The dirty water flows out of the filter through the backwash hose.
3. When the water coming out of the blue hose runs clear, turn off the pump. This will usually take two to three minutes
4. Raise the backwash valve to the normal position and you're done.

For more information, go to [www.haywardnet.com](http://www.haywardnet.com) and click on Sand Filters.

## CARTRIDGE FILTERS

A cartridge filter needs to be cleaned once the pressure gauge has risen by 10 pounds, which is typically several times a year. We recommend that a qualified technician perform this service since cartridge filters can be damaged rather easily. This is a routine maintenance procedure and is not a warranty item.

## BACKWASHING TIPS

1. It's best to note the operating pressure before you backwash. After backwashing, it should be 5 to 10 lbs. lower, reflecting a freer, less restricted flow of water.
2. It is normal for the pool to lose a few inches of water during backwashing. This is good for the pool but the pool needs to be refilled. If you have an automatic water leveler, it should only take an hour or two.

Do not backwash so long that the water level in the pool falls below the skimmer. If this happens, the pump will suck air into the system and that can eventually damage the pump. Add water to your pool before continuing. You can raise the water level more quickly by using a garden hose in addition to your automatic water leveler (if your pool is equipped with one).

**NOTE: BEFORE BACKWASHING, BE SURE YOUR VALVES ARE SET SO THE WATER RETURNS TO THE POOL THROUGH THE WALL RETURNS - NOT THROUGH SPA JETS, WATERFALLS, OR THE AERATOR WHICH WILL INCREASE THE PRESSURE READING.**

For more information, go to [www.haywardnet.com](http://www.haywardnet.com) and click on Cartridge Filters.

## HEATERS

Temperature controls on your heater let you set the temperature of your pool and spa water independently. Spa temperatures can be set much higher than those for your pool.

Before heating the water, be sure all valves are in the proper position to ensure that the water is coming from and returning to whichever one you wish to heat. (See your valve position notes on page 19.)

The following applies to standard controls. If you have a Goldline system, please go to [www.haywardnet.com](http://www.haywardnet.com).

LEDs (light emitting diodes) that light up above each of the following words on the heater control panel indicate the following:

### HEATING

green LED, heating in process

### SPA

red LED, the system is in spa mode and will maintain the spa set point

### POOL

red LED, the system is in pool mode and will maintain the pool set point

### SERVICE

yellow LED, when an abnormal condition has been detected

### STANDBY

yellow LED, signifies control is "off"

To turn the heater on, push the "MODE" toggle switch to either "POOL" or "SPA". The Return Water Temperature will be displayed so long as you don't push the UP or DOWN key.

To check the pool or spa temperature setting, push and release the UP or DOWN key, (the set point will flash). To change the set point, push and hold the UP or DOWN key until the desired set point is displayed.

Each time you turn on the heater, the blower will turn on for approximately 40 seconds before the gas valve opens. The heater will then attempt to light. If ignition is successful, the blower will change from low speed to high speed in approximately 60 seconds and the "HEATING" light will come on.

If ignition is unsuccessful, the blower will continue to run for approximately 30 seconds and before the heater automatically recycles through two more ignition sequences. If, after the third ignition sequence, the heater fails to light, it automatically shuts off for one hour and a diagnostic code of "IF" will flash on the display. After one hour, the entire sequence will begin again. This process will continue until you turn off the heater.

The heater won't ignite if your filter is so dirty that water cannot flow freely through the system. If you have a problem with heater ignition, clean the filter and try again. If the problem persists, call us.

## DRAINS, SKIMMERS AND WATER LEVELERS

Both drains in the bottom of your pool are connected to a pipe that comes up into the bottom of the skimmer – it's the one closest to the center of your pool (furthest from you when you face the pool). The other hole in the bottom of the skimmer (closest to you) is the line that takes water back to the pump. **NOTE: IN-FLOOR CLEANING SYSTEMS HAVE A SEPARATE MAIN DRAIN NOT CONNECTED TO THE SKIMMER.**

The way you balance how much suction is coming from the drains and how much is pulled from the surface into the skimmer is by adjusting the diverter plate sitting atop the two openings. If you cover the opening in the bottom of the diverter plate completely it will maximize the suction from the drain. If you open the flap completely or pull the diverter plate out, you will maximize the suction from the skimmer. For instance, pools with in-floor cleaners require more suction coming from the drain than the skimmer.

If you use one of the many suction cleaners, you'll want almost no suction from the drain (otherwise the cleaner will get stuck on the drain). The skimmer basket that sits above the diverter plate needs to be kept relatively clean so water can pass through it and get to the pump. Clean it regularly. **BE SURE TO CLEAN IT PROMPTLY FOLLOWING WINDSTORMS.**

Set your automatic pool leveler so your pool water comes half the way up the skimmer opening (mid-tile). If it's such lower than that, air could be sucked into the pipes and damage the pump. Your water level is adjusted at start-up but will need periodic adjustment over time.

The water leveler works just like the valve in a toilet tank. Whenever the float that sits on top of the water drops, it opens a valve and water will start refilling your pool. When it reaches the right water level, the float will rise and shut off the water.

You can make small adjustments to the water leveler by bending the copper rod attached to the float. Bend it up and the water level will rise, bend it down and the pool water will drop. Take care not to bend the copper rod too much or too often or it will break. Some water levelers can be rotated into higher or lower positions to adjust water levels.

At the hose bib near your pool (on an exterior wall), you can turn a valve to shut off the water to the water leveler. Make sure this valve is fully open if your pool is not staying full. The valve is open when it is parallel to the water supply line.

A pool in Arizona will lose up to one inch of water per day. The hotter it is, the more water will evaporate. If a pool routinely loses more than an inch per day, make sure the water leveler is functioning properly, the supply line valve is open and the air relief valve on top of your filter is closed. Otherwise, call us and we will check your pool and plumbing for leaks. Leaks can be difficult to find but are usually very easy to fix.

**NOTE: WATER LEVELERS WILL NOT DRAIN OFF EXCESS WATER. IF THE WATER LEVEL EVER GETS CLOSE TO THE LEVEL OF YOUR DECK, CHECK THE WATER LEVELER IMMEDIATELY, IT MAY BE STUCK OPEN. HIGH WATER LEVELS CAN ALSO BE CAUSED BY AN ACCUMULATION OF RAINWATER DURING HEAVY STORMS. YOU CAN BACK-WASH THE FILTER TO LOWER THE WATER LEVEL. WITH CARTRIDGE FILTERS, WATER CAN BE DRAINED OFF BY ATTACHING A GARDEN HOSE TO THE HOSE BIB ABOVE THE PUMP. THIS HOSE BIB IS USED FOR PRESSURE TESTING DURING POOL CONSTRUCTION. IF YOU NEED TO SHUT OFF THE WATER LEVELER FOR ANY REASON, SHUT IT OFF BY USING THE VALVE MENTIONED ABOVE.**

If the water level reaches the bottom of the pool deck IT SHOULD BE LOWERED WITHOUT DELAY or damage to the deck will occur.

## POOL VACUUMS

Pool vacuums are very effective and work well in most pools. However, if your vacuum gets stuck repeatedly, check to make sure the suction valve located in front of the pool pump is set properly and that both the basket and filter are clean. The majority of suction should come from the pool vacuum line – very little from the drains or skimmer. If the vacuum gets stuck over your drains, too much suction is coming from them. Make the necessary adjustment to the diverter plate in the skimmer (see page 10). If you told us that you are going to use an in-pool vacuum, we may have removed the diverter from the skimmer, allowing the floor drains to become inactive. A pool vacuum is basically a moving drain, so no harm will occur as a result of removing the diverter plate.

If you purchase a suction type vacuum cleaner such as the Hayward Pool Vac Ultra, you should know the following:

1. The cleaner effectively cleans the floor and walls of your pool but it will not clean steps or benches. You must use a nylon pool brush to clean these surfaces regularly.

# **IN-FLOOR CLEANING SYSTEMS**

The in-floor cleaning system works by pushing water through the pop-up heads in your pool, stirring up the dirt so it can be passed through the filter. The main control for an in-floor cleaning system is the water valve. This is the small, domed device that has multiple pipes coming out of the bottom. Each pipe is connected to a different group of cleaning heads in the pool. The valve causes different heads in your pool to go up and down. When the heads in the pool go down, they rotate so that the next time they pop up they will be in a new position.

Like the pool vacuum, small rocks or debris can get stuck between a pop-up nozzle and its ring. When this happens, you'll notice the nozzle doesn't fully retract into the pool floor. You can clear the obstruction by going underwater and gently moving the head up and down by hand or foot while water is moving through it. If the pool is not getting clean in one or two areas, check the nozzles in that part of the pool to ensure that they move freely. If the problem is pool-wide, check the pool filter. If the pressure gauge is registering above normal, your filter needs to be backwashed.

# WAVE FORCE CIRCULATION SYSTEM

The Wave Force circulation system utilizes venturi accelerated down jet returns, which will tumble the water from the top to the floor distributing sanitation evenly and minimizing the burden on any cleaning system. It is recommended with a Wave Force circulation system that you run your variable speed filter pump 2 - 4 hours on high speed and 13 - 15 hours on low speed daily depending on the use and size of the pool.

# AUTOMATIC SALT CHLORINATOR SYSTEMS

2. Rocks, leaves and toys can get stuck in the vacuum's opening, causing the vacuum to stop moving. With the pool pump off, reach into the bottom of the cleaner with your finger to clear the debris. This will usually allow the vacuum to continue operation.
  3. In some instances, it may be necessary to loosen a screw in the bottom of the vacuum and remove a small plate in order to clear more stubborn obstructions. This is a simple and easy task that requires a screwdriver.

For more information, go to [www.haywardnet.com](http://www.haywardnet.com)

**NOTE: IF YOU CALL OUR SERVICE DEPARTMENT TO COME OUT AND REPAIR AN "INOPERABLE" VACUUM AND ANY OBSTRUCTION (PEBBLE, LEAF, TOY, ETC.) IS FOUND TO BE THE PROBLEM, YOU WILL BE CHARGED APPROPRIATELY. THIS IS A MAINTENANCE - NOT A WARRANTY - ISSUE.**

Automatic salt chlorinator systems (also known as electronic chlorine generators) are very user-friendly and work by converting salt into chlorine. By eliminating the need to add manufactured chlorine to your pool water, you'll experience less eye and skin irritation and enjoy better smelling and tasting water. In addition, you'll save both money and time controlling the calcium level in your pool.

Salt systems must periodically be cleaned of excess calcium. Depending on the unit you have on your pool, this could be once a week or once a month. Please refer to the systems owner's manual provided to you to determine what you should do and when to do it.

For more information, go to: [www.haywardnet.com](http://www.haywardnet.com)

## **WATER FLOW DIVERSION VALVES**

These valves are simple devices that do an important job. They are used to control where water comes from and goes to. The more water features you have, the more valves you'll have to turn them on and off. These valves have three pipes leading into or out of the water feature. Rotating the valve handle changes the water flow by closing off one pipe while opening another. For instance, the valve in front of the pump can be positioned to pull water from the skimmer or rotated so that water is pulled from the pool vacuum.

These valves can be set to cut off the water flow completely or be set to pull water through two different pipes. The normal position for the valve in front of the pump is about  $\frac{3}{4}$  of the way towards the skimmer port so that only  $\frac{1}{4}$  of the water comes from the skimmer. This will maintain a full flow of water and a quiet pump. Too much suction from the pool vacuum could result in air being sucked into the pipes causing a noisy pump.

Stabilizer (Cyanuric Acid) is a necessity with all pools in Arizona and must be added to pools equipped with a salt system. You should maintain this level at 70-80 ppm.

If you maintain proper pH and alkalinity levels, you'll reduce waterline staining, eliminate chlorine odors, burning eyes, itching skin and prevent swimsuits from fading. In short, you'll have clean, clear, naturally sanitized water and find the whole experience easier, less expensive and more enjoyable.

**NOTE: MAINTAIN SALT LEVELS PER MANUFACTURER'S RECOMMENDATIONS. DO NOT EXCEED THOSE LEVELS DUE TO SALT'S HIGHLY CORROSIVE NATURE.**

Call us at 480-345-0005 if you don't have a salt system and would like more information. Most systems can be installed at any time on any pool.

No maintenance is required on our valves and moving the handles won't harm anything (as long as you don't shut a valve that prevents water from getting to the pump or back to the pool).

**NOTE: IT IS VERY IMPORTANT THAT YOU KNOW WHAT EACH VALVE CONTROLS IN ORDER TO GET THE GREATEST BENEFIT FROM YOUR POOL SYSTEM. THE FOLLOWING PAGES ALLOW YOU TO PERSONALIZE YOUR MANUAL AND NOTE HOW VALVE PLACEMENT AFFECTS THE OPERATION OF YOUR POOL'S FEATURES.**

# ISSUES AND PROBLEM-SOLVING

## CONCRETE CRACKS

Concrete is both strong and durable, but it can crack when the earth below it moves. The best way to prevent earth movement is to keep water away from your concrete pool deck through smart landscaping and efficient drainage. We also try to control where cracks are most likely to occur and minimize the chance of visible cracking by using expansion joints in the concrete.

At times, earth will move in unforeseen ways and noticeable cracks will appear. If the cracks get wide enough (roughly the thickness of a dime), we can improve the look of your deck by patching the concrete. Small cracks are best left alone as the repair can be more unsightly than the crack.

We also design "floating" decks to minimize surface cracking. When movement occurs, it often causes the joint between the pool and deck to open up. This appears as a crack on the underside of the deck where it sits on the pool.

This opening is less objectionable to many people because it usually can only be seen from inside the pool. It is also repairable. Repairing this joint is best done in the winter after a full season has passed.

Please consider the impact of water drainage on deck movement as you plan and install your landscaping and water systems, especially in areas of expansive soil.

## POOL LEAKS AND STRUCTURE CRACKS

Our swimming pools almost never crack because we use a unique steel-reinforced design. If you do notice an underwater crack that seems like it could be structural, call us. It is important to determine if it is just a shrinkage blemish or a crack that needs to be repaired.

Structural repairs often require the pool to be drained completely. Once the repair is made, the pool will be refilled promptly.

Most pool leaks occur around pool fittings, lights and water features. If you feel that the pool is losing more than an inch per day to evaporation, it's wise to do a water evaporation test. Just turn off the water leveler, mark the water level and see how much pool water evaporates compared to the water in a bucket that you've marked, set beside the pool and check in 24 hours. If the pool loses more water than the bucket, call us at 480-345-0005 and we'll check your plumbing lines, water features and underwater fittings after we perform our own evaporative test.

## CALCIUM BUILD-UP

The most unsightly of all pool problems is probably the calcium build-up that appears at the waterline and on water features. Calcium build-up can occur for several reasons. Evaporation removes water from your pool but leaves the calcium behind. The more water that evaporates, the more the calcium level increases. Eventually, despite good water chemistry, the calcium begins to "fall out" of the water. You'll first notice it along the waterline or on water features that routinely get wet and then dry out (typically waterfalls or spillways). But eventually it could cover all pool surfaces.

What can you do about it? You should monitor the calcium level and when it gets high, drain off a few feet of pool water and replace it with fresh water. As a general rule, plaster pools need to be partially drained when they reach 600 ppm calcium and Sea Glass Pebble® pools when they reach 800-1000 ppm calcium.

Keeping the pH and alkalinity levels in check will also help. Waterline pre-treatments and automatic chlorinating (salt system) products also help. You should be sure to brush your pool regularly and clean the tile with either a powdered cleanser or a pumice stone whenever you notice any deposits.

You should also have your pool water tested by your local pool supply store on a regular basis. Even if you have a pool service, a supply store can usually give you the best advice on calcium maintenance. There are also many companies that clean tile and Sea Glass Pebble® at the waterline. (One of the best and most effective methods is known as glass beading.)

Over time, it's normal for a pool to have some form of calcium buildup. Please understand that this is a maintenance – not a warranty – issue.

## PLASTER AND SEA GLASS PEBBLE®

Without proper care, both plaster and Sea Glass Pebble® surfaces can become stained by calcium, dirt and other debris. As discussed previously, calcium maintenance is essential if you expect to enjoy your pool for years to come. Most warranty issues related to plaster and Sea Glass Pebble® result from an owner's misunderstanding of either water chemistry or the product. In either case, our warranty does not cover problems caused by poor maintenance.

You can tell whether a stain is a maintenance issue by lightly sanding it with waterproof fine grit sandpaper. If the stain can be sanded off, it is on the surface and came from the water or outside elements – this is not a warranty item. Calcium nodules and spot etching are caused by chemical imbalances and are also non-warranty items.

Stains such as rust will get worse the deeper you go. These kinds of stains are covered by your warranty.

Remember, Sea Glass Pebble® is supposed to be mottled with varying concentrations of stone exposure and variations in color. Plaster is also a cement product mined from the earth and is never uniform in color. The color variations are more noticeable in the evening or when your pool is illuminated at night, which has nothing to do with the quality of the finish.

Monitor your chemicals, brush your pool and enjoy its beauty. With proper care it will stay looking good for a long time.

## ISSUES AND PROBLEM-SOLVING CONTINUED

### COMMON TROUBLESHOOTING

Here are a few of the potential maintenance and warranty situations that you might encounter over the years. This section will provide problem-solving tips as well as information clarifying some of our policies. We are always happy to help you, so please call with any questions.

**Q:** Why is the pump making more noise than normal?

**A:** Pump noise can be an indication of water flow restriction, the water level being too low or a burned motor. **CHECK** – Pump basket (page 11), valve positions (page 19), and filter water pressure.

**Q:** Why has my spa drained?

**A:** A spa drains into the pool when the valves are left in an incorrect position while the pump is on, when a valve is left open on a raised spa with the pump off or when a check valve fails.

**CHECK** – Valve positions (page 19) and clean the check valves with pool off by twisting the gray top, revealing a spring-loaded “O” ring. Check the “O” ring for dirt or wear, lubricate and replace.

**Q:** Why has my deck lifted, cracking the Sea Glass Pebble® or tile just below the deck?

**A:** Decks lift as a result of the soil swelling and lifting the deck. This is a warranty item although it is best to wait through a full season of heat, monsoons, cool weather and dry weather to make repairs. Expansive soil tends to stabilize with time and a full and complete repair will be most effective by waiting until the soil stabilizes. It is good to check the yard drainage and keep heavily watered areas away from the deck.

**Q:** Why is there a brownish stain on the plaster that is worse along the steps and benches? I also see a whitish build-up on my tile or Sea Glass Pebble® along the waterline.

**A:** These are both calcium build-up issues that result from improper water chemistry – they are not covered by your warranty. The brownish color results from excess calcium that attracts and traps dirt. It can be removed from plaster or Sea Glass Pebble® with fine wet/dry sandpaper. Waterline deposits can be cleaned by using a pumice stone. If the deposits are excessively heavy, you can hire a company to blast the calcium off with tiny beads of fiberglass (known as glass beading) at a reasonable cost. The water should be checked for alkalinity, pH, and calcium levels. When the calcium level reaches 600 ppm in a plaster pool – or 800-1000 ppm in a Sea Glass Pebble® pool, the pool may need to be drained of a few feet of water and refilled with fresh water to reduce the calcium level.

**Q:** Why does my Sea Glass Pebble® look uneven? I see more of the little stones in one area and less in another and a circular pattern around the drain that is a slightly different color.

**A:** Irregular patterns are normal in Sea Glass Pebble®. You'll see a little less stone at the back of benches and steps as well as around fixtures. The patterns add to both its durability and beauty. If you still think you might have a problem, call us. We will be happy to let you know if we can improve the appearance of your Sea Glass Pebble® surface.

**Q:** Why does the pool light turn on and off by itself?

**A:** The frequency we have set for your light remote control may be the same frequency that a neighbor's product uses. Your remote control touchpad has a small dial that you can use to change the frequency of your remote by selecting a different letter. Once the remote's frequency has been changed, you must also reset the receiver module (located at the pool light switch) to that same letter/frequency. Not all pools come equipped with the same remote, some use a different product. Please call us with any questions and we will try to walk you through whatever remedy is necessary or schedule a technician to come out and correct the problem for you.

**Q:** Why don't all my spa jets have the same pressure intensity?

**A:** All spas will have uneven pressure between jets. We “loop” all of our plumbing to minimize the difference in jet pressure but water will always flow fastest down the path of least resistance. If one jet is severely underpowered it is likely that a stone or some other obstacle is reducing the flow of water. Call us and if it is an obstacle of some sort, it's usually a simple and quick repair.

**Q:** Why is my yard soaking wet near the pool equipment and my pool missing a foot or more of water?

**A:** Before anything else, TURN OFF THE POOL FILTER BREAKER on your main breaker panel. Next, run a garden hose into the pool and turn it on. Then turn off the pump. Check to see if the backwash valve was left in the wrong position. (When the time clock turns on the pump and the pool begins to backwash, it will drain the pool and spill the water into your yard.) Because it is important that the pump not run dry, do not turn the pump on until the pool water is refilled.

**Q:** Why does the pool vacuum get stuck on the steps?

**A:** Be sure your valves are set to provide the right amount of suction to the vacuum line. Otherwise, see if your pool vacuum (like most) can have a bumper device installed to keep the vacuum moving.

**Q:** Why has my pool vacuum stopped?

**A:** The pool vacuum can stop if the filter is dirty and the pump is unable to pull water into the vacuum fast enough to make it work properly. If this is the case, simply backwash your filter. (See pages 13-14.) It's also possible that leaves, rocks or other debris have clogged the unit. First, turn the pump off. Then turn the pool vacuum upside down and clear debris by reaching into the opening on the underside (use your finger or a screwdriver). If you can't dislodge the debris, you may need to remove the undercarriage. Clear all debris and reassemble. Be sure to refill the vacuum and hose with water before turning on the pump.

**Q:** What causes my pool vac to only turn in one direction and the hose to coil up?

**A:** The bearings or gears in the unit may need to be repaired or one of your valves is in the wrong position (see page 19). If you call us within your three-year warranty period, we will fix your pool vac at no charge. After three years, we can fix it for a nominal fee.

**NOTE: DO NOT STORE POOL VACUUM HOSES COILED OR ROLLED UP - KEEP THEM STRAIGHT.**

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## REFERRAL REWARD PROGRAM

Keep in mind that our referral program is a great way to earn some extra money.

For the first people you refer that builds a project with California Pools & Landscape you will receive the following:

\$100 Pool Project

\$100 Landscape Project

\$100 Remodel Project

\$200 Pool & Landscape

So go for it! Earn up to \$200 per referral just for spreading the word about California Pools. Please call us at 480-345-0005 with your referral's name and phone number to ensure you are on our records as the first referral source. You can also fill out one of the forms below and eMail to info@calpool.com or fax it to 480-756-5602. We can only pay one person listed as the first referral source on each reward.

CALIFORNIA POOLS & LANDSCAPE		REFERRAL COUPON \$\$		
REFERRED BY	REFERRED NAME			
PHONE		ADDRESS		
CITY		STATE	ZIP	

CALIFORNIA POOLS & LANDSCAPE		REFERRAL COUPON \$\$		
REFERRED BY	REFERRED NAME			
PHONE		ADDRESS		
CITY		STATE	ZIP	

CALIFORNIA POOLS & LANDSCAPE		REFERRAL COUPON \$\$		
REFERRED BY	REFERRED NAME			
PHONE		ADDRESS		
CITY		STATE	ZIP	



## CALIFORNIA POOLS & LANDSCAPE

4320 West Chandler Boulevard, Suite 1 • Chandler, AZ 85226

**480-345-0005**

[WWW.CALPOOL.COM](http://WWW.CALPOOL.COM)